

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4136075	A1	19930506	DE 4136075	A	19911030	199319 B
DE 4136075	C2	19930812	DE 4136075	A	19911030	199332

Priority Applications (No Type Date): DE 4136075 A 19911030

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 4136075	A1	6	H01L-021/58	
DE 4136075	C2	6	H01L-021/58	

Abstract (Basic): DE 4136075 A

In anodic bonding of an insulating disc to a conductive disc, the discs are sandwiched and heated under pressure on a hot plate and an electrical potential is applied to the sandwich. The novelty is that another hot plate is used for heating and applying pressure.

The hot plates consist of stainless steel, pref. coated with a metal resistant to bases. A second insulating disc is used, with the conductive disc sandwiched between the two insulating discs, and the polarity of the potential applied to the hot plates is reversed once during bonding and/or the potential is applied to the insulating disc and one of the hot plates. Additional conductive disc(s) may be pressed onto the outside of the insulating disc(s).

USE/ADVANTAGE - Useful for bonding discs of metal or semiconductor, e.g., Si, Ge, GaAs, InP or SiGe wafers, to insulating discs, e.g., of glass. Use of the second hot plate minimises distortion and makes it possible to bond more than 2 discs.

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Abstract (Equivalent): DE 4136075 C

Process for bonding a disk-shaped insulating body to a disk-shaped conducting body comprises placing the bodies together to form a sandwich-like arrangement; heating the bodies using two hot plates; applying an electrical voltage to the bodies. The sandwich-like arrangement (30) is formed by a further disk-like insulating body (33), so that the conducting body (31) lies between the insulating bodies (32, 33), and the electrical voltage is once during bonding.

ADVANTAGE - A composite body is made from more than one disk-shaped insulating body and a disk-shaped conducting body.

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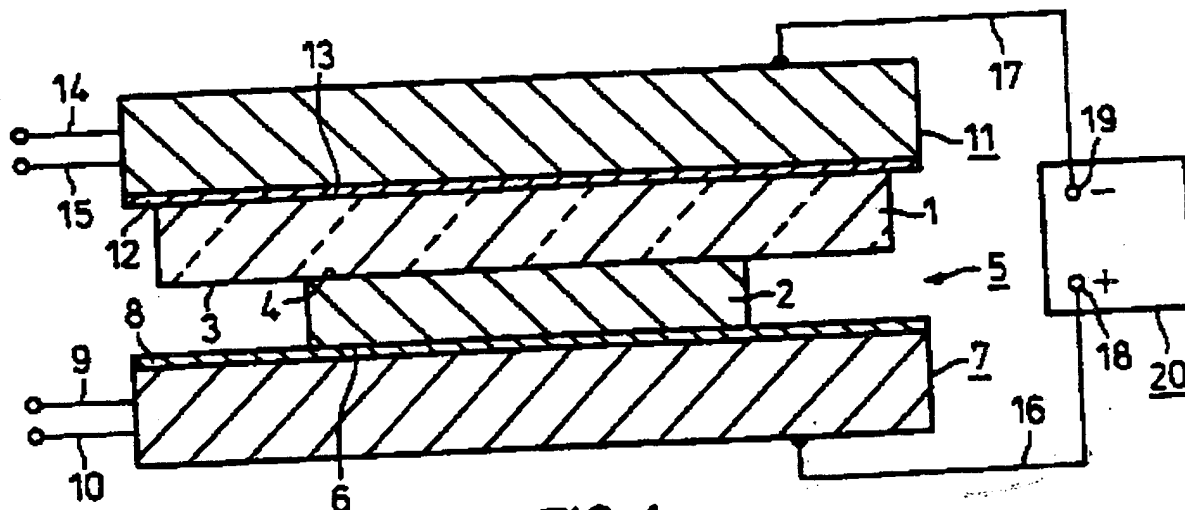


FIG 1

Title Terms: ANODE; BOND; INSULATE; CONDUCTING; DISC; SANDWICH; TWO; HOT; PLATE; HEAT; APPLY; PRESSURE; MINIMISE; DISTORT; ALLOW; MORE; TWO; DISC; BOND

Derwent Class: L03; P55; U11; X25

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International Patent Class (Additional): B23K-011/20; C03C-027/02; H05B-003/10

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